



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

SEP 17 2013

REPLY TO THE ATTENTION OF.

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Dan Kersting
Plant Manager
Al Chem & Cy US AcquiCo, Inc.
2715 Miller Road
Kalamazoo, Michigan 49001

Evert VanderBerg
Safety, Health, and Environmental Manager
Cytec Industries Inc.
3115 Miller Road
Kalamazoo, Michigan 49001

Re: Notice of Violation and Finding of Violation
Cytec Industries, Inc.
Al Chem & Cy US AcquiCo, Inc.
Kalamazoo, Michigan

Dear Mr. Kersting and Mr. Vanderberg:

The U.S. Environmental Protection Agency is issuing the enclosed Notice of Violation and Finding of Violation (NOV/FOV) to Cytec Industries, Inc. and Al Chem & Cy US AcquiCo, Inc. (collectively, "you"), for violations identified at the facility located at 3115 and 2715 Miller Road in Kalamazoo, Michigan (the facility). This NOV/FOV is issued in accordance with Section 113(a) of the Clean Air Act (CAA), 42 U.S.C. § 7413(a).

EPA has determined that you are violating the Michigan State Implementation Plan, including the requirements of Permits to Install issued to you for the facility. Additionally, EPA has determined that you are violating Section 112 of the CAA, 42-U.S.C. § 7412, the applicable implementing regulations, and Title V of the CAA, 42 U.S.C. § 7661 *et seq.*

EPA is offering you an opportunity to confer with us about the violations cited in the NOV/FOV. At the conference, you may present information on the identified violations, any efforts you have taken to comply, and the steps you will take to prevent future violations. Please plan for your facility's technical and management personnel to take part in these discussions. You may have an attorney represent you at this conference.

You may contact Alexandra Letuchy at (312) 866-6035 to request a conference. You should make the request for a conference no later than 10 calendar days after receipt of this letter, and we should hold any conference within 30 calendar days after receipt of this letter.

Sincerely,



George T. Czerniak
Director
Air and Radiation Division

Enclosure

cc: Mary Douglas, District Supervisor
MDEQ Air Quality Division

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

IN THE MATTER OF:

Cytec Industries, Inc. and
Al Chem & Cy US AcquiCo, Inc.
Kalamazoo, Michigan

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Proceedings Pursuant to the
Clean Air Act, 42 U.S.C. § 7401 *et seq.*

EPA-5-13-MI-08

NOTICE OF VIOLATION AND FINDING OF VIOLATION

The U.S. Environmental Protection Agency is issuing this Notice of Violation and Finding of Violation (NOV/FOV or Notice) to Cytec Industries, Inc. ("Cytec") and Al Chem & Cy US AcquiCo, Inc. ("AcquiCo") (collectively, "the Companies"), for violations of the Clean Air Act (CAA), 42 U.S.C. § 7401 *et seq.*, at the facility located at 3115 and 2715 Miller Road in Kalamazoo, Michigan (the facility).

This Notice is issued pursuant to Sections 113(a)(1) and (a)(3) of CAA, 42 U.S.C. §§ 7413(a)(1) and (a)(3). The authority to issue this Notice has been delegated to the Director, Air and Radiation Division, Region 5.

STATUTORY AND REGULATORY BACKGROUND

National Emission Standards for Hazardous Air Pollutants

1. Pursuant to Section 112(b) of the CAA, 42 U.S.C. § 7412(b), EPA designates hazardous air pollutants (HAPs) which present or may present a threat of adverse effects to human health or the environment. EPA has designated methanol (Chemical Abstracts Service (CAS) Number 67561) and formaldehyde (CAS Number 50000) as HAPs under Section 112(b) of the CAA.
2. Sections 112(c) and (d) of the CAA, 42 U.S.C. §§ 7412(c) and (d), require EPA to publish a list of categories of sources which EPA finds present a threat of adverse effects to human health or the environment due to emissions of HAPs, and to promulgate emission standards for each source category. These standards are known as "national emission standards for hazardous air pollutants" or "NESHAPs." EPA codifies these requirements at 40 C.F.R. Part 63.
3. The NESHAP are national technology-based performance standards for HAP sources in each category that become effective on a specified date. The purpose of these standards is to ensure that all sources achieve the maximum degree of reduction in emissions of HAPs that EPA determines is achievable for each source category.

4. Section 112(i)(3) of CAA, 42 U.S.C. § 7412(i)(3), and 40 C.F.R. § 63.4, prohibit the owner or operator of any source from operating such source in violation of any NESHAP applicable to such source.
5. Section 112(a)(1) of the CAA, 42 U.S.C. § 7412(b), and 40 C.F.R. § 63.2, define "major source" as any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year (TPY) or more of any HAP or 25 TPY or more of any combination of HAPs.

NESHAP for Miscellaneous Organic Chemical Manufacturing at 40 C.F.R. Part 63, Subpart FFFF

6. The NESHAP, at 40 C.F.R. Part 63, Subpart A, contains general provisions applicable to the owner or operator of any stationary source that contains an affected source subject to the NESHAP at Part 63. These include definitions at 40 C.F.R. § 63.2.
7. The NESHAP, at 40 C.F.R. § 63.2, defines "affected source" as the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a CAA Section 112(c) source category or subcategory for which a Section 112(d) standard or other relevant standard is established pursuant to Section 112 of the CAA.
8. The NESHAP, at 40 C.F.R. § 63.2, defines "existing source" as any affected source that is not a new source, and further defines "new source" as any affected source the construction or reconstruction of which is commenced after EPA first proposes a relevant emission standard under 40 C.F.R. Part 63 establishing an emission standard applicable to such source.
9. The NESHAP, at 40 C.F.R. § 63.2, defines "performance test" as the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.
10. On November 10, 2003, EPA promulgated the NESHAP for Miscellaneous Organic Chemical Manufacturing (MON), codified at 40 C.F.R. Part 63, Subpart FFFF. 68 *Fed. Reg.* 63888. The NESHAP for MON establishes emission standards, requirements to demonstrate initial and continuous compliance with emission limits, operating limits, work practice standards, and recordkeeping requirements associated with miscellaneous organic chemical manufacturing. See 40 C.F.R. § 63.2430.
11. The NESHAP for MON, at 40 C.F.R. § 63.2435(a), provides that owners and operators are subject to the MON if they operate miscellaneous organic chemical manufacturing process units (MCPUs) that are located at, or are part of, a major source of HAP emissions as defined in Section 112(a) of the CAA.

12. The NESHAP for MON, at 40 C.F.R. § 63.2550, defines “miscellaneous organic chemical manufacturing process” as all equipment which collectively functions to produce a product or isolated intermediate that are “materials” described in 40 C.F.R. § 63.2435(b). Process includes any, all, or a combination of reaction, recovery, separation, purification, or other activity, operation, manufacture, or treatment which are used to produce a product or isolated intermediate.
13. The NESHAP for MON, at 40 C.F.R. § 63.2435(b), provides that a MCPU includes equipment necessary to operate a miscellaneous organic chemical manufacturing process, as defined in 63.2550, that, among other things: produces certain organic chemicals with an SIC or NAICS code listed in 40 C.F.R. § 63.2435(b)(1)(i) or (ii); processes, uses or generates any of the organic HAP listed in Section 112(b) of the Act; and is not an affected source under another NESHAP. An MCPU also includes any assigned storage tanks and transfer racks; equipment in open systems that is used to convey or store water having the same concentration and flow characteristics as wastewater; and components such as pumps, compressors, agitators, pressure relief devices, sampling connection systems, open ended valves or lines, valves, connectors, and instrumentation systems.
14. The NESHAP for MON, at 40 C.F.R. § 63.2445(b), provides that owners and operators of existing sources on November 10, 2003 subject to the MON must comply with the requirements for existing sources no later than May 10, 2008.

Title V Requirements

15. Pursuant to Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), it is unlawful for any person to, among other things, operate a major source subject to Title V except in compliance with a Title V permit after the effective date of any permit program approved or promulgated under Title V of the Act. EPA first promulgated regulations governing state operating permit programs on July 21, 1992. *See 57 Fed. Reg. 32295*; 40 C.F.R. Part 70.
16. EPA granted interim approval of the Michigan Title V program on January 10, 1997. *See 62 Fed. Reg. 1387* (effective on February 10, 1997). EPA fully approved the Michigan Title V program on December 4, 2001. *See 66 Fed. Reg. 62949* (effective on November 30, 2001). The Michigan regulations governing the Title V permit program, also known as the “renewable operating permit program,” are codified at R 336.1210 through R 336.1219.
17. 40 C.F.R. § 70.2 defines “major source,” in part, as any stationary source (or group of stationary sources that are located on one or more contiguous or adjacent properties, and are under common control of the same person (or persons under common control)) belonging to a single major industrial grouping and that directly emits or has the potential to emit greater than 100 TPY of any criteria air pollutant, 10 TPY of a single HAP, or 25 TPY of all HAP combined. *See also* R. 336.1211.
18. 40 C.F.R. § 70.7(b) provides that no source subject to 40 C.F.R. Part 70 requirements may operate without a permit as specified in the CAA. *See also* R 336.1210.

19. 40 C.F.R. § 70.1(b) provides that all sources subject to Title V shall have a permit to operate that assures compliance by the source with all applicable requirements. *See also* R 336.1213.
20. Section 503 of the CAA, 42 U.S.C. § 7661b, and 40 C.F.R. § 70.5(a), set forth the requirement to submit a timely, accurate, and complete permit application for a permit, including information required to be submitted with the application. *See also* R 336.1210 and R 336.1212.

Michigan SIP and Permits to Install

21. Section 110 of the CAA, 42 U.S.C. § 7410, requires each state to adopt and submit to EPA a plan that provides for the implementation, maintenance, and enforcement of primary and secondary National Ambient Air Quality Standards in the state. Upon approval by EPA, the plan becomes part of the applicable State Implementation Plan (SIP) for the state.
22. On May 6, 1980, EPA approved R 336.1201 as part of the federally approved Michigan SIP. 45 *Fed. Reg.* 29790. R 336.1201 provides that a person shall not install, construct, reconstruct, relocate or alter any process or control equipment thereto, which may be a source of an air contaminant, until a permit to install is issued. The rule further provides that a permit to install shall cover construction, reconstruction, and alteration of equipment where such is involved.
23. Pursuant to 40 C.F.R. § 52.23, failure to comply with any approved regulatory provision of a SIP, or with any permit condition or permit denial issued pursuant to approved or promulgated regulations for the review of new or modified stationary or indirect sources, or with any permit limitation or condition contained within an operating permit issued under an EPA-approved program that is incorporated in the SIP, shall render the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement action under Section 113 of the CAA.

Permit to Install No. 418-96A

24. On March 6, 2003, the Michigan Department of Environmental Quality (MDEQ) issued Permit to Install (PTI) No. 418-96A to Cytec for the facility.
25. PTI No. 418-96A, Flexible Group Conditions, FGMRPT, Condition 11.1.e limits methanol emissions to 6.1 pounds per hour (lb/hr) for FGMRPT operations exhausted through the methanol scrubber. The permit identifies FGMRPT as “batch process: Cymel production and methylated resins.”
26. PTI No. 418-96A, Flexible Group Conditions, FGMRPT, Condition 11.12 provides that the permittee shall not process more than 234 batches of material in the first stage of the process for FGMPRT during any calendar month.

Permit to Install No. 418-96B

27. On May 27, 2004, MDEQ issued PTI No. 418-96B to Cytec for the facility.
28. PTI No. 418-96B, Flexible Group Conditions, FGMRPT, Condition 11.1.e limits methanol emissions to 6.1 lb/hr for FGMRPT operations exhausted through the methanol scrubber. The permit identifies FGMRPT as "batch process: Cymel production and methylated resins."
29. PTI No. 418-96B, Flexible Group Conditions, FGMRPT, Condition 11.12 provides that the permittee shall not process more than 234 batches per month of material in the first stage of the process for FGMRPT based on a rolling 12-month average.

Permit to Install No. 418-96C

30. On January 29, 2008, MDEQ issued PTI No. 418-96C to Cytec for the facility.
31. PTI No. 418-96C, Flexible Group Conditions, FGBOILERS, Condition 4.6c. requires that the permittee keep records of the total hours of operation for each boiler for each calendar month and keep these records on file for a period of at least five years. The permit identifies FGBOILERS as EUBOILER1, EUBOILER2, and EUBOILER3.
32. PTI No. 418-96C, Flexible Group Conditions, FGCYREZ, Condition 5.3 provides that the permittee shall not operate any equipment in FGCYREZ unless the associated baghouses (Cytec IDs 631-001 and 631-002) are installed, maintained, and operated in a satisfactory manner. The permit identifies FGCYREZ as "batch process: Cyrez production."
33. PTI No. 418-96C, Flexible Group Conditions, FGFACILITY, Condition 13.2 provides that the permittee shall not operate FGFACILITY unless the approved Control Device Operating, Maintenance, and Monitoring Plan (CDOMMP-C) for FGFACILITY is implemented and maintained. The permit identifies FGFACILITY as "all equipment at the stationary source, including equipment covered by other permits, 'grand-fathered' equipment, and exempt equipment."
34. CDOMMP-C requires that the facility operate baghouses (Cytec ID 631-001 and 631-002) properly, and provides for the operating range a differential pressure reading of 2 through 12 inches of water.
35. PTI No. 418-96C, Flexible Group Conditions, FGMRPT, Condition 9.6 provides that the permittee shall not operate the process steps exhausted to the methanol scrubber (Cytec ID 631-509) unless the seal pots, the methanol scrubber (Cytec ID 631-509), and the cryogenic condenser (Cytec ID 631-516) are installed, maintained, and operated in a satisfactory manner. Operation of the cryogenic condenser in a satisfactory manner includes achieving an outlet vapor temperature of -34 degrees Centigrade or lower after the final condensing step. The permit identifies FGMRPT as "batch process: Cymel production methylated resins."

36. PTI No. 418-96C, Flexible Group Conditions, FGMRPT, Condition 9.12 provides that the permittee shall not process more than 234 batches per month of material in the first stage of the process for FGMRPT, based on a rolling 12-month average.
37. PTI No. 418-96C, Flexible Group Conditions, FGMRPT, Condition 9.1e. limits methanol emissions to 6.1 lb/hr for FGMRPT operations exhausted through the methanol scrubber.

Permit to Install No. 418-96D

38. On May 22, 2009, MDEQ issued PTI No. 418-96D to Cytec for the facility.
39. PTI No. 418-96D, Flexible Group Conditions, FGBOILERS, Condition VI.2.c. provides that the permittee shall keep records of the total hours of operation for each boiler for each calendar month and keep these records on file for a period of at least five years. The permit identifies FGBOILERS as EUBOILER1, EUBOILER2, and EUBOILER3.
40. PTI No. 418-96D, Flexible Group Conditions, FGCYREZ, Condition IV.1. provides that the permittee shall not operate any equipment in FGCYREZ unless the associated baghouses (Cytec IDs 631-001 and 631-002) are installed, maintained, and operated in a satisfactory manner. The permit identifies FGCYREZ as "batch process: Cyrez production."
41. PTI No. 418-96D, Flexible Group Conditions, FGMRPT, Condition IV.5. provides that the permittee shall not operate the process steps exhausted to the methanol scrubber (Cytec ID 631-509) unless the seal pots, the methanol scrubber (Cytec ID 631-509), and the cryogenic condenser (Cytec ID 631-516) are installed, maintained, and operated in a satisfactory manner. Operation of the cryogenic condenser in a satisfactory manner includes achieving an outlet vapor temperature of -40 degrees Centigrade or lower after the final condensing step. The permit identifies FGMRPT as "batch process: cymel production methylated resins."
42. PTI No. 418-96D, Flexible Group Conditions, FGMRPT, Condition II.1. provides that the permittee shall not process more than 76.6 million pounds of methylated resin (MR) product per year based on a 12-month rolling time period.
43. PTI No. 418-96D, Flexible Group Conditions, FGMRPT, Condition I.4. limits formaldehyde emissions to 0.09 lb/hr for FGMRPT operations exhausted through the sodium metabisulfite (MBS) scrubber.
44. PTI No. 418-96D, Flexible Group Conditions, FGMRPT, Condition I.5. limits methanol emissions to 6.1 lb/hr for FGMRPT operations exhausted through the methanol scrubber and cryogenic condenser.
45. PTI No. 418-96D, Flexible Group Conditions, FGFACILITY, Condition I.3. limits individual HAP emissions for the entire facility to 9.9 tons on a 12-month rolling time period.

Permit to Install No. 418-96E

46. On May 18, 2011, MDEQ issued PTI No. 418-96E to Cytec for the facility.
47. PTI No. 418-96E, Flexible Group Conditions, FGBOILERS, Condition VI.2.c requires that the permittee keep records of the total hours of operation for each boiler for each calendar month and keep these records on file for a period of at least five years. The permit identifies FGBOILERS as EUBOILER1, EUBOILER2, and EUBOILER3.
48. PTI No. 418-96E, Flexible Group Conditions, FGCYREZ, Condition IV.1. provides that the permittee shall not operate any equipment in FGCYREZ unless the associated baghouses (Cytec IDs 631-001 and 631-002) are installed, maintained, and operated in a satisfactory manner. The permit identifies FGCYREZ as "batch process: Cyrez production."
49. PTI No. 418-96E, Flexible Group Conditions, FGFACILITY, Condition III.1. provides that the permittee shall not operate FGFACILITY unless the approved Control Device Operating, Maintenance, and Monitoring Plan (CDOMMP-E) for FGFACILITY is implemented and maintained. The permit identifies FGFACILITY as "all equipment at the stationary source, including equipment covered by other permits, 'grand-fathered' equipment, and exempt equipment."
50. CDOMMP-E requires that the permittee monitor and record daily magnehelic readings for the baghouses (Cytec ID 631-001 and 631-002), and provides for the operating range a differential pressure reading of 2 through 12 inches of water.
51. PTI No. 418-96E, Flexible Group Conditions, FGCYREZ, Condition VI.1. and the CDOMMP-E provides that the permittee shall maintain the required records for the operation and maintenance of the baghouses (Cytec ID 631-001 and 631-002) on file for a period of five years.
52. PTI No. 418-96E, Flexible Group Conditions, FGMRPT, Condition IV.5. provides that the permittee shall not operate the process steps exhausted to the methanol scrubber (Cytec ID 631-509) unless the seal pots, the methanol scrubber (Cytec ID 631-509), and the cryogenic condenser (Cytec ID 631-516) are installed, maintained, and operated in a satisfactory manner. Operation of the cryogenic condenser in a satisfactory manner includes achieving an outlet vapor temperature of -50 degrees Centigrade or lower after the final condensing step. The permit identifies FGMPRT as "batch process: Cymel production and methylated resins."
53. PTI No. 418-96E, Flexible Group Conditions, FGMRPT, Condition II.1. provides that the permittee shall not process more than 76.6 million pounds of MR product per year based on a 12-month rolling time period.
54. PTI No. 418-96E, Flexible Group Conditions, FGMRPT, Condition I.5. limits methanol emissions to 6.1 lb/hr for FGMRPT operations exhausted through the methanol scrubber and cryogenic condenser.

55. PTI No. 418-96E, Flexible Group Conditions, FGFACILITY, Condition I.3 limits individual HAP emissions for the entire facility to 9.9 tons on a 12-month rolling time period.

FACTUAL BACKGROUND

56. The Companies operate a chemical manufacturing facility located at 3115 and 2715 Miller Road in Kalamazoo, Michigan. At the facility, the Companies produce a variety of organic chemicals, including coatings, resins, and composites. The chemicals that the Companies process at the facility include, but are not limited to, methanol and formaldehyde. Additionally, the Companies operate a "vapor recovery unit," which is the primary device used to control methanol emissions from the facility and consists of a methanol scrubber and cryogenic condenser.
57. On August 13, 2012, EPA conducted an inspection of the facility. On December 20, 2012, EPA issued an information request pursuant to Section 114 of the CAA to Cytec (Information Request). On March 4, 2013, Cytec submitted information in response to the Information Request (Response). The Companies provided additional information requested by EPA, including but not limited to, the dates specified below.
58. By two letters dated April 16, 2013, AcquiCo submitted to MDEQ a stationary source determination and a request to transfer PTI No. 418-96E from Cytec to AcquiCo. These letters stated that on April 4, 2013 a transfer of ownership occurred between the Companies. These letters further stated that AcquiCo had purchased the methylated resins (MR) and cyrez product manufacturing portions of the facility, and that Cytec would continue to own the KM polymers portion of the facility.

NESHAP for Miscellaneous Organic Chemical Manufacturing at 40 C.F.R. Part 63, Subpart FFFF

59. The Companies operate miscellaneous organic chemical manufacturing process units (MPCUs) within the meaning of 40 C.F.R. §§ 63.2435 and 63.2440.
60. On May 14, 2013, Cytec submitted estimated calculations for methanol emissions from the facility for calendar years 2010, 2011, and 2012 (Methanol Spreadsheets). The Methanol Spreadsheets include hours of operation, production rates, and quantities produced.
61. Based on the production and emission limits in PTI Nos. 418-96A through E and the information in the Methanol Spreadsheets, the facility's potential to emit, including controls, has exceeded the major source threshold for methanol from at least March 6, 2003 to the present.
62. By letter dated November 9, 2012, Cytec provided EPA a 2010 Toxic Release Inventory (TRI) Methanol Emission Breakdown spreadsheet (2010 TRI Methanol Spreadsheet).¹

¹ Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA), 42 U.S.C. § 11023, establishes the TRI and requires facilities in different industry sectors to report annually how much of certain

According to the 2010 TRI Methanol Spreadsheet, the total emissions of methanol from the facility reported by Cytec for 2010 exceeded the major source threshold.

63. In the Response, Cytec provided the results of performance tests and engineering tests conducted at the vapor recovery unit on the following dates: November 10, 2009; November 13, 2009; November 16, 2009; January 8, 2010; January 21, 2010; January 22, 2010; March 4, 2010; and May 12, 2010.
64. Based on the results of the performance tests, engineering tests and information included in the Methanol Spreadsheets, the facility's total emissions for methanol exceeded the major source threshold for calendar years 2010 and 2012.

Title V Requirements

65. As discussed above, the facility's potential to emit and actual emissions have exceeded the major threshold for methanol, and therefore the facility is a "major source" subject to Title V of the Act.
66. The Companies have not applied for, and have not been issued, a Title V permit for the facility.

Permit to Install

67. The Companies operate three boilers, identified in PTI Nos. 418-96C through E, as EUBOILER1, EUBOILER2, and EUBOILER3. In the Information Request, EPA requested records of the total hours of operation for each boiler from December 2007 to the present, as required by PTI Nos. 418-96C through E. The Response did not contain any records of hours of operation for the boilers.
68. The Companies operate two baghouses, identified as Cytec IDs 631-001 and 631-002 in PTI Nos. 418-96D and E. In the Information Request, EPA requested daily records of the differential pressure readings for each baghouse from December 2002 to the present. The Response did not contain records for January 2010 through December 2010 and July 2011 through December 2011. The records that were provided in the Response indicated that the baghouses deviated from the required operating range of 2 to 12 inches of water on several occasions. The table below, for the time period identified, provides: the total number of daily readings that deviated from the required operating range; and the percentage of time the baghouses operated out of compliance based on the number of deviations over the time period.

toxic chemicals is released to the environment and/or managed through recycling, energy recovery and treatment.

Time Period	Number of Deviations from Operating Range (2 -12 inches of water)	Percentage of Time Out of Compliance
January 2012 through December 2012	54	14.79%
January 2011 through June 2011	27	14.79%

69. The Companies operate a cryogenic condenser, and continuously monitor and record the outlet vapor temperature from the final condensing step of the cryogenic condenser, as required by PTI Nos. 418-96C through E. In the Information Request, EPA requested monitoring records for the cryogenic condenser's outlet vapor temperature from December 2007 to the present. On March 27, 2013, Cytec provided records to EPA indicating that the cryogenic condenser exceeded the applicable outlet vapor temperature limit on several occasions. The table below, for the time period identified, provides: the required outlet vapor temperature identified in the relevant permit; the number of exceedances; and the percentage of time the cryogenic condenser operated out of compliance based on those exceedances. The data is based on readings taken every 30 minutes.

PTI No.	Required Outlet Vapor Temperature (degrees Centigrade)	Time Period	Number of Exceedances	Percentage of Time Operated Out of Compliance
418-96C	- 34 or lower	May 15, 2008 - May 22, 2009	1826	10.45%
418-96D	- 40 or lower	May 22, 2009 - May 18, 2011	1719	5.13%
418-96E	- 50 or lower	May 18, 2012 – Dec 31, 2012	2122	7.44%

70. On November 10 and 13, 2009, Cytec conducted performance tests to determine the methanol emission rate for the vapor recovery unit. These performance test results show that emissions from the vapor recovery unit exceeded the limit of 6.1 lbs/hr in PTI No. 418-96D.
71. On January 8, 2010, Cytec conducted an engineering test to determine the methanol emission rate on the vapor recovery unit. The engineering test results show that emissions from the vapor recover unit exceeded the limit of 6.1 lbs/hr in PTI No. 418-96D.

72. On January 11, 2010, Cytec conducted an engineering test to determine the formaldehyde emission rate at the MBS scrubber and summarized the results of this test in a letter to MDEQ. The results of this performance test indicate that emissions from the MBS scrubber exceeded the limit of 0.09 lbs/hr in PTI No. 418-96D.

VIOLATIONS

NESHAP Violations

73. From at least March 6, 2003 to the present, the facility has have been a major source of HAP and were therefore required to comply with the requirements of the NESHAP for MON at 40 C.F.R. Part 63, Subpart FFFF by May 8, 2008. From May 8, 2008 to the present, the Companies failed to comply with the requirements of the NESHAP for MON, which includes requirements to demonstrate initial and continuous compliance with emission limits, operating limits, work practice standards, and recordkeeping requirements associated with miscellaneous organic chemical manufacturing, in violation of 40 C.F.R. Part 63, Subpart FFFF and Section 112 of the CAA, 42 U.S.C. § 7412.

Title V Violations

74. The Companies failed to submit a timely Title V permit application to the State of Michigan, in violation of 40 C.F.R. §§ 70.5(a) and 70.7(b) and Section 503 of the CAA.
75. The Companies have operated, and continue to operate without a Title V permit issued by the State of Michigan, in violation of 40 C.F.R. §§ 70.1(b) and 70.7(b) and Section 502 of the CAA.

SIP and Permit to Install Violations

76. The Companies failed to keep records of the total hours of operation for each boiler for each calendar month, in violation of Condition 4.6.c in Section FGBOILERS of PTI No. 418-96C, Condition VI.2.c in Section FGBOILERS of PTI No. 418-96D, and Condition VI.2.c in Section FGBOILERS of PTI No. 418-96E.
77. The Companies failed to maintain and operate the baghouses with Cytec IDs 631-001 and 631-002 in a satisfactory manner, in violation of Condition IV.1 in Section FG CYREZ of PTI No. 418-96D and Condition IV.1 in Section FG CYREZ of PTI No. 418-96E.
78. The Companies failed to keep records for baghouses Cytec IDs 631-001 and 631-002 in a satisfactory manner, in violation of Condition IV.1 in section FG CYREZ of PTI No. 418-96E.
79. The Companies failed to operate the cryogenic condenser in a satisfactory manner, in violation of Condition 9.6 in section FG MRPT of PTI No. 418-96C, Condition IV.5 in section FG MRPT of PTI No. 418-96D, and Condition IV.5 in section FG MRPT of PTI No. 418-96E.

80. On November 10, 2009, November 13, 2009 and January 8, 2010, the vapor recovery unit exceeded the methanol hourly emission limit, in violation of Condition I.5 in section FGMRPT of PTI No. 418-96D.
81. On January 11, 2010, the MBS scrubber exceeded the formaldehyde hourly emission limit, in violation of Condition I.4 in section FGMRPT of PTI No. 418-96D.
82. For calendar years 2010 and 2012, the facility's emissions of methanol exceeded the annual individual HAP emission limit, in violation of Condition I.3 in section FGFACILITY of PTI No. 418-96D and Condition I.3 in section FGFACILITY of PTI No. 418-96E.

ENVIRONMENTAL IMPACT OF VIOLATIONS

83. The violations described above may result in elevated and potentially uncontrolled emissions of particulate matter and hazardous air pollutants, including methanol and formaldehyde, to the atmosphere.
84. Particulate matter contains microscopic solids or liquid droplets, which can get deep into the lungs and cause serious health problems. Particulate matter exposure contributes to: irritation of the airways; coughing; difficulty breathing; decreased lung function; aggravated asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease.
85. Acute exposure to methanol by inhalation may result in visual disturbances, such as blurred or dimness of vision; and neurological damage, specifically permanent motor dysfunction. Chronic inhalation may result in headache; insomnia; conjunctivitis; visual disturbances; and blindness.
86. Acute exposure to formaldehyde may result in eye, nose, and throat irritation and affects the nasal cavity. Inhalation may cause coughing; wheezing; chest pains; and bronchitis. Chronic inhalation exposure has been associated with respiratory symptoms. EPA considers formaldehyde to be a probable human carcinogen.

ENFORCEMENT AUTHORITY

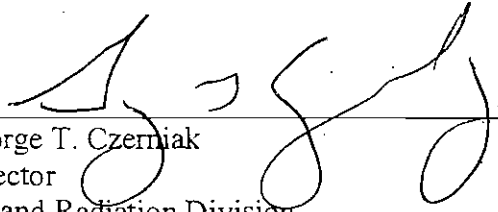
87. Section 113(a)(1) of the Act, 42 U.S.C. § 7413(a)(1), provides in part that at any time after the expiration of 30 days following the date of the issuance of a Notice of Violation, EPA may, without regard to the period of violation, issue an order requiring compliance with the requirements of the applicable SIP or permit, issue an administrative penalty order pursuant to Section 113(d), or bring a civil action pursuant to Section 113(b) for injunctive relief and/or civil penalties.
88. Section 113(a)(3) of the Act, 42 U.S.C. § 7413(a)(3), provides in part that if EPA finds that a person has violated or is in violation of any requirement or prohibition of any rule promulgated under Title I and/or Title V of the Act, EPA may issue an administrative penalty order under Section 113(d), issue an order requiring compliance with such

requirement or prohibition, or bring a civil action pursuant to Section 113(b) for injunctive relief and/or civil penalties.

Date

9/17/13

George T. Czerniak
Director
Air and Radiation Division

A handwritten signature in black ink, appearing to read 'G. Czerniak', is written over a horizontal line.

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent a Notice of Violation and Finding of Violation, No. EPA-5-13-MI-08, by Certified Mail, Return Receipt Requested, to:

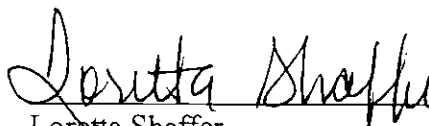
Dan Kersting
Plant Manager
Al Chem & Cy US Acquoio, Inc.
2715 Miller Road
Kalamazoo, Michigan 49001

Evert VanderBerg
Safety, Health, and Environmental Manager
Cytec Industries Inc.
3115 Miller Road
Kalamazoo, Michigan 49001

I also certify that I sent copies of the Notice of Violation and Finding of Violation by first-class mail to:

Mary Douglas,
Air Quality Division
7953 Adobe Road
Kalamazoo, MI 49009

On the 18 day of September 2013.



Loretta Shaffer
AECAB, Planning and Administration Section

CERTIFIED MAIL RECEIPT NUMBER: 70091680000076695640